



Union of Concerned Scientists

June 13, 2007

The Honorable Robert F. Sawyer, Ph.D.
Chairman, California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Proposed Amendments to the Phase 3 California Reformulated Gasoline Regulations, June 14, 2007 Board Meeting, Agenda Item 07-6-3

Dear Chairman Sawyer:

The undersigned organizations are pleased to submit comments concerning the Air Resources Board's (ARB) Proposed Amendments to the Phase 3 California Reformulated Gasoline Regulations (CaRFG3). Clean fuel formulations remain an essential strategy for reducing smog-forming and toxic pollution from motor vehicles. Current requirements for CaRFG3 are insufficient to protect the health of California citizens and should be amended without delay.

Mitigation Measures for Increased Permeation Should be Enforced As Soon As Possible

Current requirements for CaRFG3 ethanol blending and the use of the fuel in motor vehicles produce significant evaporative permeation emissions. According to the ARB staff report, permeation was responsible for 29 tons per day of smog-forming emissions in 2005. Any delay in implementing new fuels regulations would allow the continued release of harmful air pollution. Therefore, ARB should implement and enforce new requirements that account for these emissions as soon as possible.

While mitigation is needed today, ARB does not require full mitigation of permeation emissions until 2010 and complete compliance with new fuel formulation requirements until 2012. ARB expects that some refiners can blend ethanol using the proposed Predictive Model today, but has given more than four years of lead time for those refiners that require equipment modifications. Since permeation emissions are already polluting today's air, further extension of the compliance date is unacceptable.

Alternative Emissions Reduction Plan (AERP) Must Remain a Temporary Compliance Mechanism

We urge you to insure that the AERP is a temporary measure that is narrowly prescribed to only apply in limited situations and not a general compliance method. We support ARB's recommendation that the proposed AERP sunset on December 31, 2011. The AERP should provide refiners only temporary relief from meeting the full fuel formulation requirements of the proposed Predictive Model while refinery modifications are made.

We agree that emission reductions sought under the AERP must come from sources related to the combustion of gasoline. The reductions should be quantifiable, verifiable and in excess of reductions created from different sources, required under other programs or part of on-going business practices. Furthermore, the emission reductions should occur in the same region in which the producer would normally distribute fuel. Banking of emission reductions under the AERP should be prohibited.

We urge you to resist any attempts by fuel providers to allow public funds to be used to execute an AERP. ARB designed the AERP to provide refiners with additional flexibility to comply with fuel formulations required for selling reformulated gasoline in the State. If fuel providers choose to utilize the AERP, they should shoulder all costs for achieving the necessary mitigation of permeation emissions.

Immediate ARB Action Is Required to Mitigate Off-Road Permeation Emissions

The proposed amendments to the Phase 3 Gasoline Regulations fail to address significant permeation emissions that result from the use of gasoline blended with ethanol in off-road motor vehicles.

ARB is obligated by law to mitigate all emissions resulting from the phase out of MTBE through the state's gasoline regulations. Senate Bill 989 (Sher, 1999) enacted Health and Safety Code 43013.1(b), which states that:

(b) The state board shall ensure that regulations for California Phase 3 Reformulated Gasoline (CaRFG3) adopted pursuant to Executive Order D-5-99 meet all of the following conditions:

(1) Maintain or improve upon emissions and air quality benefits achieved by California Phase 2 Reformulated Gasoline in California as of January 1, 1999, including emission reductions for all pollutants, including precursors, identified in the State Implementation Plan for ozone, and emission reductions in potency-weighted air toxics compounds.

Currently, ARB's obligation to comply with Section 43013.1(b)(1) remains open because ARB has determined that CaRFG3 emissions from on and off-road sources exceed those from CaRFG2. Extensive studies have established that evaporative permeation emissions increase significantly with CaRFG3 when used in on-road vehicles.¹ Off-road vehicles such as pleasure craft and lawnmowers also result in increased emissions when using

¹ Coordinating Research Council, CRC Project E-67 Final Report "Effects of Ethanol and Volatility Parameters on Exhaust Emissions," January 30, 2006 and CRC Project E-65-3 Interim Report "Fuel Permeation from Automotive Systems: E0, E6, E10 and E85," August 2006.

CaRFG3. According to initial estimates by ARB, off-road vehicles will emit over 10 tons per day of evaporative reactive organic gases (ROG) in the South Coast Air Basin in 2010, surpassing on-road evaporative emissions in that year.² ARB's staff report estimates that off-road evaporative emissions could be as high as 39 tons per day statewide and may only be partially offset by reductions in exhaust hydrocarbon emissions with the addition of more ethanol. Until all on-road and off-road emissions and air quality benefits of CaRFG2 are achieved, ARB's obligations specified in Section 43013.1(b)(1) remain unfulfilled. Again, we urge you to resist any attempts by fuel providers to shift their current responsibilities under the law to public funds or programs.

We urge staff to move quickly to collect necessary data and propose further amendments to CaRFG3 and/or initiate other ARB regulations to fully mitigate the impacts of ethanol on off-road sources. ARB staff should return to the Board with a proposal for mitigation actions no later than 18 months from the June 14, 2007 board hearing.

Thank you for your consideration of our comments.

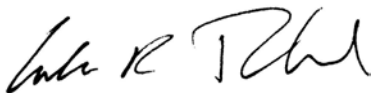
Sincerely,



Bonnie Holmes-Gen
American Lung Association of California



John Shears
Center for Energy Efficiency and Renewable Technologies



Luke Tonachel
Natural Resources Defense Council



Patricia Monahan
Union of Concerned Scientists

² CARB, "On- and Off-road Ethanol Emissions Impacts", presentation by Ben Hancock, CARB Fuels Meeting, June 30, 2006.